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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/667,585  | 09/22/2003  | Patrick Brant        | 2002B123/2          | 9633             |
| 23455   | 7590        | 12/05/2005           | EXAMINER            |                  |
| EXXONMOBIL CHEMICAL COMPANY<br>5200 BAYWAY DRIVE<br>P.O. BOX 2149<br>BAYTOWN, TX 77522-2149 |             |                      | RABAGO, ROBERTO     |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1713                |                  |

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|------------------------------|------------------------|---------------------|
|                              | 10/667,585             | BRANT ET AL.        |
| Examiner                     | Art Unit               |                     |
| Roberto Rábago               | 1713                   |                     |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 21 September 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-173 is/are pending in the application.  
4a) Of the above claim(s) 1-19,64-72 and 120-157 is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 20-39,41-56,58,60-63,73-91,93-108,110,112-119 and 158-173 is/are rejected.  
7)  Claim(s) 40,57,59,92,109 and 111 is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/11/2004.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_ .

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Group II, with election of species, in the reply filed on 9/21/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Following a search of the elected species, the remaining species are joined for examination.

### ***Specification***

2. The abstract is objected to because it has not been presented as a single paragraph. The abstract should be amendment to delete the paragraph break.

### ***Drawings***

3. Figure 12 is objected to because the poor print quality in combination with the negative image tone is not sufficiently legible. In response, applicants should submit a positive-tone image (i.e., black print on white background) of sufficient print quality. Applicants are reminded that corrections to drawings will not be held in abeyance.

### ***Claim Objections***

4. Claims 44 and 96 are objected to as lacking a period at the end of the claim.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 60-62 and 112-114 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are indefinite in that it cannot be determined whether the temperature and pressure conditions specified in the parent claims apply to the first, second, or all reactors.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 20-34, 41, 50-54, 74-86, 93, 102-106, 115, 158 and 162-165 are rejected under 35 U.S.C. 102(b) as being anticipated by Shigekauzu et al. (US 6,255,410).

Reference Examples 2-7, 9, 11, 14-20 and 23-29 disclose processes of high-temperature, high pressure olefin polymerization using metallocene catalyst, including all claimed limitations. Regarding the claimed reactor dimensions, one of ordinary skill

in the art would immediately envisage such dimensions because applicants have claimed broad ranges of conventional values.

8. Claims 20-22, 24, 25, 27-29, 32-34, 41, 50-53, 63, 162, 164 and 166 are rejected under 35 U.S.C. 102(b) as being anticipated by Welborn, Jr., et al. (US 5,084,534).

Reference Examples 25-41 disclose processes of high-temperature, high pressure olefin polymerization using metallocene catalyst, including all claimed limitations. Regarding the claimed reactor dimensions, one of ordinary skill in the art would immediately envisage such dimensions because applicants have claimed broad ranges of conventional values.

9. Claims 20, 24-29, 32-34, 42-44, 50-53, 55, 56, 58, 63, 162 and 164 are rejected under 35 U.S.C. 102(b) as being anticipated by Moll et al. (US 5,969,062).

Reference Examples 7-14 disclose processes of high-temperature, high pressure olefin polymerization using metallocene catalyst, including all claimed limitations. Regarding the claimed reactor dimensions, one of ordinary skill in the art would immediately envisage such dimensions because applicants have claimed broad ranges of conventional values.

#### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 23, 25, 31, 74-86, 93, 102-105, 115, 118-119, 158-161, 163, 165, 167 and 167-169 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welborn, Jr., et al. (US 5,084,534).

Reference Examples 25-41 disclose processes of high-temperature, high pressure olefin polymerization using metallocene catalyst. Although unexemplified, the reference recommends additional embodiments including the claimed monomers (col. 3, lines 55-60), temperatures and pressures (col. 3, lines 30-35 and col. 7, line 59 through col. 8, line 3). Regarding the claimed reactor dimensions, one of ordinary skill in the art would immediately envisage such dimensions because applicants have claimed broad ranges of conventional values. One of ordinary skill in the art would be motivated to use these alternative embodiments in the disclosed method because such use has been recommended in the reference.

12. Claims 21, 30-31, 45-49, 74, 75, 78, 81-86, 94-105, 107, 108, 110, 115, 117, 163 and 165 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moll et al. (US 5,969,062).

Reference Examples 7-14 disclose processes of high-temperature, high pressure olefin polymerization using metallocene catalyst. Although unexemplified, the reference recommends additional embodiments including the claimed monomers, temperatures

and pressures (col. 2, line 1-17). Regarding the claimed reactor dimensions, one of ordinary skill in the art would immediately envisage such dimensions because applicants have claimed broad ranges of conventional values. One of ordinary skill in the art would be motivated to use these alternative embodiments in the disclosed method because such use has been recommended in the reference.

13. Claims 35 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shigekauzu et al. (US 6,255,410) in view of Mawson et al. (US 6,689,847).

The parent claims are discussed with respect to the primary reference above. Shigekauzu is primarily directed to the details of the high-pressure polymerization system, and does not provide significant details regarding catalyst selection, other than indicating that metallocenes are useful. Mawson discloses catalyst compositions comprising a metallocene and a bisamide, and states that these catalysts are suitable for use at high temperature and pressure (col. 40, lines 37-44; Examples 6-9; patented claims). One of ordinary skill in the art would be motivated to use the process conditions of Shigekauzu with other conventionally known metallocene-containing catalyst compositions, such as those of Mawson, for the purpose of obtaining a variety of useful polymer compositions.

14. Claims 37-39, 73, 89-91, 116 and 170-173 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shigekauzu et al. (US 6,255,410) in view of Mehta et al. (US 20010044506).

The parent claims are discussed with respect to the primary reference above.

Shigekauzu is primarily directed to the details of the high-pressure polymerization system, and does not provide significant details regarding catalyst selection, other than indicating that metallocenes are useful. Mehta discloses catalyst compositions comprising one or two metallocenes, including those claimed (paragraphs 049-0137). One of ordinary skill in the art would be motivated to use the process conditions of Shigekauzu with other conventionally known metallocene-containing catalyst compositions, such as those of Mehta, for the purpose of obtaining a variety of useful polymer compositions.

15. Claims 36 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shigekauzu et al. (US 6,255,410) in view of Canich et al. (US 6,492,473).

The parent claims are discussed with respect to the primary reference above. Shigekauzu is primarily directed to the details of the high-pressure polymerization system, and does not provide significant details regarding catalyst selection, other than indicating that metallocenes are useful. Canich discloses catalyst compositions comprising one a metallocenes in combination with a bisimine (abstract, claims 1and 4, Examples S6-S9). One of ordinary skill in the art would be motivated to use the process conditions of Shigekauzu with other conventionally known metallocene-containing catalyst compositions, such as those of Canich, for the purpose of obtaining a variety of useful polymer compositions.

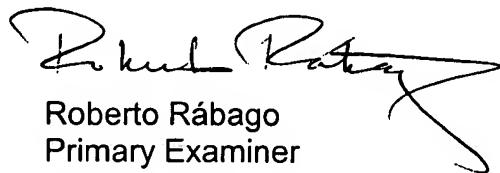
***Allowable Subject Matter***

16. Claims 40, 57, 59, 92, 109 and 111 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roberto Rábago  
Primary Examiner  
Art Unit 1713

RR  
November 14, 2005